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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/565,249

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Pedro Stange

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EXAMINER

KAYES, SEAN PHILLIP

ART UNIT

PAPER NUMBER

2833

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No. 10/565,249	Applicant(s) STANGE ET AL.	
	Examiner SEAN KAYES	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-25,27-31 and 33-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-25,27-31 and 33-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/24/2008 has been entered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "pressure pin" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

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consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 21-22, 27-28, 30-31, 33-34, and 38-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lilly (US 4229813) in view of Breuer (US 4802255.)

5. With regard to claim 21 Lilly discloses a method for displaying a time dependent process the method comprising:

- providing a device having a porous indicator strip (abstract and figure 1) disposed on its surface, the indicator strip having a first portion and a second, opposite portion, the second portion having a dye pre-applied thereto;
- applying a liquid (20 figure 2) onto the first portion of the porous indicator strip
- allowing the liquid to migrate (abstract) from the first portion to the second portion, causing the dye to dissolve in the liquid; and

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- diffusing (abstract) the dye along the length of the indicator strip.

Lilly does not teach the strip disposed on a toothbrush.

Breuer teaches timing the shelf-life of a toothbrush, for the purpose of knowing when to replace said toothbrush.

At the time of the invention it would have been obvious to one skilled in the art to use Lilly's device for timing the usable lifespan of a toothbrush as taught by Breuer. The reason for doing so would be to indicate to a user when it is time to replace a toothbrush as taught by Breuer.

6. With regard to claim 22 Lilly discloses the method according to claim 21, further comprising providing the liquid within a storage capsule (20 figure 2) located adjacent the first portion of the indicator strip.

7. With regard to claim 27 Lilly discloses the method according to claim 22, further comprising applying the liquid to the indicator strip from the storage capsule (abstract and figure 2.)

8. With regard to claim 28 Lilly discloses the method according to claim 27, further comprising opening the capsule by applying mechanical pressure to a flexible cladding substantially surrounding the indicator strip and the capsule (column 5 lines 1-28, particularly lines 4-6).

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9. With regard to claim 30 Lilly discloses a display device for a toothbrush, the device comprising:

- a capsule (6 and 20 figure 2) to store a liquid and comprising a seal for controllable release of the liquid; and
- a porous (abstract and figure 2) indicator strip disposed adjacent to the capsule, the indicator strip having a display surface, a first portion adjacent the capsule and a second portion opposite the first portion (top and bottom of the strips 2 and 13 figure 2), the indicator strip comprising a porous substrate having a dye pre-applied to a portion of its surface, the indicator strip being configured so that molecules of the dye adhere to the indicator strip prior to release of the liquid;
- wherein the indicator strip (abstract and figure 2) is configured to diffuse the dye from the first portion toward the second portion and subsequently form a line of demarcation along the indicator strip.

Lilly does not teach the strip disposed on a toothbrush.

Breuer teaches timing the shelf-life of a toothbrush, for the purpose of knowing when to replace said toothbrush.

At the time of the invention it would have been obvious to one skilled in the art to use Lilly's device for timing the usable lifespan of a toothbrush as taught by Breuer. The reason for doing so would be to indicate to a user when it is time to replace a toothbrush as taught by Breuer.

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10. With regard to claim 31 Lilly discloses the device of claim 30, further comprising a scale located adjacent the indicator strip to provide an indication of elapsed time ("0", "6", "8", "16", and "24" figure 2).

11. With regard to claim 33 Lilly discloses the device according to claim 30, wherein the dye is disposed along the second portion of the indicator strip (the abstract states wherein the dye migrates from one side "printed" to the other "unprinted").

12. With regard to claim 34 Lilly discloses the device according to claim 30, wherein the device is configured to introduce the liquid from the capsule to the dye along the indicator strip (abstract.)

13. With regard to claim 38 Lilly discloses the device according to claim 30, further comprising a protective cladding substantially surrounding the indicator strip and the capsule (column 5 lines 1-28, particularly lines 4-6).

14. With regard to claim 39 Lilly discloses the device according to claim 38, further comprising a mechanical pressure device arranged on an opposite side of the indicator strip facing away from the display surface configured to actuate and burst the capsule (column 5 lines 1-28, particularly lines 4-6).

15. With regard to claim 40 Lilly discloses a device comprising:

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- a capsule (6 and 20 figure 2) to store a liquid and comprising a seal for controllable release of the liquid; and
- a porous indicator strip (abstract and figure 2) disposed adjacent to the capsule, the indicator strip having a display surface, a first portion adjacent the capsule and a second portion opposite the first portion, the indicator strip comprising a dye, the dye being pre-applied to the second portion of the indicator strip in a manner so that molecules of the dye adhere to the indicator strip prior to release of the liquid (column 5 lines 1-28);
- wherein the indicator strip is configured to diffuse the dye from the first portion toward the second portion and subsequently form a line of demarcation along the indicator strip to indicate elapsed time (abstract and "0" through "24" figure 2.)

Lilly does not teach the strip disposed on a toothbrush.

Breuer teaches timing the shelf-life of a toothbrush, for the purpose of knowing when to replace said toothbrush.

At the time of the invention it would have been obvious to one skilled in the art to use Lilly's device for timing the usable lifespan of a toothbrush as taught by Breuer. The reason for doing so would be to indicate to a user when it is time to replace a toothbrush as taught by Breuer.

16. With regard to claim 41 Lilly discloses the method of claim 1 wherein the strip is pre-impregnated with the dye (abstract).

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17. With regard to claim 42 Lilly discloses the method of claim 1 wherein the strip is pre-printed with the dye (printed side, abstract.)

18. With regard to claim 43 Lilly discloses the method claim 1 wherein the strip has been conditioned to cause molecules of the dye to adhere to the strip (abstract and column 5 lines 1-28).

19. With regard to claim 44 Lilly discloses the method of claim 30, wherein the porous substrate is impregnated with the dye prior to release of the liquid (the abstract discloses the dye is separate from the liquid capsule.)

20. With regard to claim 45 Lilly discloses the device of claim 30 wherein the porous substrate is printed with the dye prior to release of the liquid (the abstract discloses a printed side separate from the liquid capsule.)

21. Claims 23, 25, 35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lilly (US 4229813) in view of Breuer (US 4802255) in further view of Diekmann (US 6916116.)

22. With regard to claims 23 and 35 Lilly discloses the method according to claims 21 and 30.

Lilly teaches using oil soluble inks and does not explicitly mention using water or water soluble ink.

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Water based inks are prevalent and well known. Whether an oil based ink is employed, a water based ink, a blue ink, a red ink, or a green ink, the principle of operation of the device remains unchanged. The selection of the ink hinges on a number of different considerations such as color contrast, aesthetics, availability, and cost. These considerations are within the purview of one of ordinary skill in the art. At the time of the invention it would have been obvious to use a water bases ink and water in Lilly's device rather than oil and oil based inks, such as is taught by Diekmann (column 10 lines 19-28). The reason for doing so would have been to substitute one well known ink for another. Water is regarded as cheaper/more cost effective than oil. The same is true for water based inks and oil based inks. Diekmann teaches a desirable trait of water as a diffusion medium is that water is non reactive and innocuous.

23. With regard to claims 25 and 37 Lilly discloses the method according to claims 21 and 30.

Lilly does not teach wherein the indicator strip comprises cellulose filter paper.

Diekmann teaches using cellulose paper as a diffusion material (column 9 lines 25-41.)

At the time of the invention it would have been obvious to one skilled in the art to use cellulose paper as a diffusion material in Lilly's as taught by Diekmann. The reason for doing so would have been to utilize a naturally occurring diffusion material as taught by Diekmann. Diekmann teaches the desirability of cellulose paper having random channel patterns.

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24. Claims 24 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lilly (US 4229813) in view of Breuer (US 4802255) in further view of Ko (US 7294379.)

25. With regard to claims 24 and 36, Lilly discloses the method according to claims 21 and 30.

Lilly does not teach the dye comprises Erythrosin B or Coormassie Brilliant Blue.

Erythrosin B or Coormassie Brilliant Blue are merely particular examples of ink choices, i.e. blue inks. Selection of an ink is a minor consideration of the types of device taught by Lilly and applicant. Whether an oil based ink is employed, a water based ink, a blue ink, a red ink, or a green ink, the principle of operation of the device remains unchanged. The selection of the ink hinges on a number of different considerations such as color contrast, aesthetics, availability, and cost. These considerations are within the purview of one of ordinary skill in the art.

For these reasons it is concluded that at the time of the invention it would have been obvious to one skilled in the art to choose Erythrosin B or Coormassie Brilliant Blue dye as the dye in Lilly's invention.

Commassie brilliant blue and Erythrosin B are particular examples of blue organic dyes. Ko teaches a similar timing device that utilizes Erythrosin as the dye (column 17 lines 23-45; particularly line 39.)

At the time of the invention it would have been obvious to one skilled in the art to choose a particular blue organic dye for use in Lilly's device. At the time of the invention it would have been obvious to one skilled in the art to choose Erythrosin as the blue dye

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for use in Lilly's timing device as taught by Ko. The reason for doing so would be to select a particular dye for use in Lilly's device so as to construct the device.

26. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lilly (US 4229813) in view of Breuer (US 4802255) in further view of Ferrin (US 4911038).

27. With regard to claim 29 Lilly discloses the method according to claim 27.

Lilly does not teach opening the capsule by actuating a pressure pin arranged adjacent the capsule.

The use of pressure pins to actuate/rupture capsules is very well known in the art. For instance the common soda can utilizes a pressure pin to open the can, see Ferrin item 43 figure 6. Moreover applicant's disclosure of the invention (paragraph 28 of the PGPUB 20070058490; fourth paragraph of page 6 of the specification) recites a pressure pin, but provides little in the way of additional details. The concept of a pressure pin is thus enabled (with regard to 112) only in so much as the concept is already known to one of ordinary skill in the art.

As stated above Lilly does not teach a pressure pin. At the time of the invention it would have been obvious to one of ordinary skill in the art to vary the structural strength of the capsule module. The reason for doing so would depend on the various conditions that the device is expected to experience. For instance it would be desirable to configure the capsule to be capable of withstanding a fall from a counter top. In designing a structurally resistant capsule it would likewise occur to one of ordinary skill in the art for providing a methodology for breaking said structurally resistant capsule. According to

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the discussion above and the evidence set forth by Ferrin is it concluded that at the time of the invention the concept of a pressure pin would have constituted an obvious variant of the Lilly device for exceeding the strength of the capsule. The reasons for modifying Lilly's device with a pressure pin would depend on the unique set of user conditions. For instance one reason would have been to allow a weak user to break the capsule. Another reason would be to allow a user to break a structurally resilient capsule, such that said capsule resists accidental breakage.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN KAYES whose telephone number is (571) 272-8931. The examiner can normally be reached on 11:00am to 9:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on (571) 272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vit W. Miska/
Primary Examiner, Art Unit 2833

SK
10/31/2008